

REMARKS

Reexamination and reconsideration of claims 1, 3-7, 11-16, 18, 23, and examination of claims 24 and 28, are respectfully requested. Claims 2, 8-10, 17, 19-22, 25-27, and 29-30 are withdrawn from consideration. Additionally, the Primary Examiner's consideration of the Information Disclosure Statement is acknowledged with appreciation.

Applicant elected to prosecute the specie of Fig. 7, requesting examination of claims 1, 3-7, 11, 12-15, 16, 18, and 23. However, Applicant inadvertently left out claims 24 and 28, which are clearly directed to the specie of Fig. 7. Therefore, claims 24 and 28 should be examined at this time. Applicant apologizes for any inconvenience caused, which should be minimal since the limitations of claims 24 and 28 are recited in other claims currently being examined. Currently, claims 1 and 12 are generic as recognized by the Primary Examiner in the Restriction Requirement dated September 17, 2003.

Claims 1, 3, 7, and 11 were rejected under 35 U.S.C. sec. 102(b) applying U.S. Pat. No. 5,408,562 ('562). The '562 patent discloses a submarine fiber optic cable for marine applications. See the Abstract and the Figures of the '562 patent. For a patent to be applicable under sec. 102(b), the patent must, *inter alia*, disclose each and every feature of the claimed invention.

It is respectfully submitted that the Office Action misinterpreted the '562 patent because each and every feature of claim 1 is not disclosed, taught, or otherwise suggested either explicitly, or inherently, by the '562 patent. Simply stated, Fig. 5 depicts a submarine fiber optic cable as supported by the objective evidence of record and is beyond refute. See the Col. 5, 11. 5-7 of the '562 patent. On the other hand, claim 1 recites, *inter alia*, "[a]n inner duct having a central passage operable for routing a transmission cable therein." It is respectfully submitted that a submarine fiber optic cable and an

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inner duct are completely different structures. Moreover, no credible broadest interpretation of claim 1 reads on the submarine cable depicted in Fig. 5 of the '562 patent as will be explained herein.

The Office Action states "[t]he patent to Yoshizawa [the '562 patent] discloses the recited inner duct having a central passage for a cable..." See p.2 of the Office Action dated November 24, 2003. This assertion is incorrect. First, the Office Action is confusing a fiber optic cable and an inner duct. These are different structures as illustrated and discussed in the present application. See Fig. 1 of the present application and the discussion thereof. Specifically, ducts are used for routing, for instance, a fiber optic cable inside the duct. Moreover, an installed duct may be left empty or have a cable installed into its passageway. More importantly, ducts allow an installed cable to be removed from the duct and/or a new cable to be added or installed. These features of ducts give the telecommunications provider flexibility and scalability when installing an optical network.

Specifically, claim 1 recites "[a]n inner duct having a central passage operable for routing a transmission cable therein..." The Office Action states that the '562 patent discloses "... a cable 10a [that] is provided in a central passageway of the inner duct where the use of the cable for transmission is considered merely intended use..." See p. 2 of the Office Action. This position of the Office Action is contrary to the objective evidence of the '562 patent. In other words, the Office Action mischaracterizes the structure, components, and cooperation of the submarine cable elements.

First, the '562 patent was misinterpreted because Fig. 5 does not disclose "...a cable 10a [that] is provided in a central passageway of the inner duct..." Rather, the objective evidence of the '562 patent states that element 11 is slotted rod produced by

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an extrusion process. Moreover, "...slotted rod 11 surrounds the wire 10 without leaving empty clearance spaces between the rod 11 and the wire 10." See the '562 patent at Col. 5, ll. 34-46. In other words, the '562 patent does not have a central passage. Therefore, it would be impossible to route a transmission cable within a central passage that does not exist. Instead, the evidence of record clearly states that slotted rod 11 is extruded tightly over wire 10, thereby forming a solid composite slotted rod as is well-known in the fiber optic cable art.

One skilled in the art would have understood that the slotted rod uses a composite structure in order to maintain the shape of the slotted rod. Stated another way, the metal wire helps the melted plastic hold its shape and inhibits slumping before the plastic cools. Moreover, once the slotted rod was cooled down it would be extremely difficult, if not impossible, to pull the metal wire from the slotted core over an appreciable length without destroying the slotted core. Furthermore, wire 10 is not a cable.

Second, the Office Action states the '562 patent "...discloses the recited inner duct having a central passage for a cable comprising a duct tube 11a (see figure 5) having an inner and outer surface..." Fig. 6 of the '562 patent shows a better view of a slotted rod. In reality, the '562 patent describes and shows that what the Office Action calls a "duct tube 11a" is really a slotted rod 11. See the Abstract of the '562 patent. As depicted in Fig. 6, the slotted rod does not have an inner surface. Rather, the slotted rod merely has an outer surface with helical slots on its periphery. In other words, the slotted rod has one continuous outer surface with slots. See Fig. 6 of the '562 patent. Moreover, slotted rod 11 it is not a "tube." To say otherwise is incorrect and completely contrary to the objective evidence of the '562 patent. Additionally, Applicant would welcome the opportunity to explain the same in a

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telephone interview. For at least the reasons stated, withdrawal of the sec. 102(b) rejection of claims 1, 3, 7, and 11 is warranted and respectfully requested.

Claims 1, 3, 7, and 11 were rejected under 35 U.S.C. sec. 102(b) applying U.S. Pat. No. 4,389,088 ('088). The '088 patent discloses an underwater fiber optic cable having a slotted rod 1. See the Abstract of the '480 patent. For a patent to be applicable under sec. 102(b), the patent must, *inter alia*, disclose each and every feature of the claimed invention.

Again, it is respectfully submitted that the Office Action misinterpreted the '088 patent because each and every feature of claim 1 not disclosed, taught, or otherwise suggested either explicitly, or inherently, by the '088 patent. Simply stated, the '088 patent requires a slotted rod 1 having helical grooves provided at the peripheral surface. See the '088 patent at Col. 2, ll. 4-12. The objective evidence shows that the '088 patent discloses an underwater fiber optic cable that is similar to the marine cable of the '562 patent. The evidence is clear that a slotted rod 1 is not a duct tube and beyond refute. For at least these reasons and the reasons stated above with respect to the '562 patent, withdrawal of the sec. 102(b) rejection of claims 1, 3, 7, and 11 is warranted and respectfully requested.

Claims 1, 3, 7, and 11 were rejected under 35 U.S.C. sec. 102(b) applying U.S. Pat. No. 5,848,212 ('212). The '212 patent discloses an optical fiber cable having a slotted rod 12 with U-shaped carriers 17 stranded thereabout. See the Abstract of the '212 patent and Col. 3, ll. 25-36. For a patent to be applicable under sec. 102(b), the patent must, *inter alia*, disclose each and every feature of the claimed invention.

It is respectfully submitted that the Office Action misinterpreted the '212 patent because each and every feature of claim 1 is not disclosed, taught, or otherwise suggested either explicitly, or inherently, by the '212 patent. Again, the fiber

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optic cable of the '212 patent has a slotted rod 12 that is similar to the marine cables of the '562 and '088 patents. The objective evidence of the '212 patent reveals that slotted rod 12 has slots/grooves its peripheral/outer surface. See the Abstract of the '212 patent and Fig. 1. In other words, slotted rod 12 does not even have an inner surface. Furthermore, no reasonable interpretation can call slotted rod 12 a duct tube as recited in claim 1. Simply stated, like the '562 and the '088 patents, there is not identity of invention between claim 1 and the '212 patent. For at least these reasons, withdrawal of the sec. 102(b) rejection of claim 1, 3, 7, and 11 is warranted and respectfully requested.

Claims 4-6, 12-16, 18 and 23 were rejected under 35 U.S.C. sec. 103(a) applying the '212 patent in view of U.S. Pat. No. 6,195,486 ('486). For patents to be applicable under sec. 103(a), the combination of teachings must, *inter alia*, expressly or inherently, teach, disclose, or suggest each and every feature of the claimed invention. Additionally, motivation and suggestion to combine the patents must be present.

First, as stated above, the '212 patent fails to disclose, teach, or otherwise suggest each and every feature of claim 1. Thus, the Office Action failed to make a *prima facie* case with respect to claims 1, 3, 7, and 11. For at least these reasons, the withdrawal of the sec. 103(a) rejection of claims 1, 3, 7, and 11 is warranted and respectfully requested.

Regarding claim 12, neither the '212 patent, nor the '486 patent, alone or in combination disclose, teach, or otherwise suggest each and every feature of claim 12. As pointed out above, the slotted rod 12 of the '212 is not a duct tube as recited in claim 12. Likewise, a slotted rod 75 of the '486 patent is not a duct tube as recited in claim 12. Moreover, at the time of the invention a skilled artisan would have understood that a slotted rod for use in a fiber optic cable core is very

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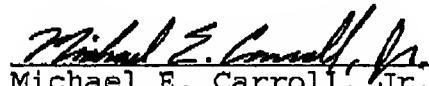
different than the recited claims. For at least these reasons, the withdrawal of the sec. 103(a) rejection of claims 12-16, 18, and 23 is warranted and respectfully requested.

No fees are believed due in connection with this Reply. If any fees are due in connection with this Reply, please charge any fees, or credit any overpayment, to Deposit Account Number 19-2167.

Allowance of all pending claims is believed to be warranted and is respectfully requested.

The Primary Examiner is welcomed to telephone the undersigned to discuss the merits of this patent application.

Respectfully submitted,


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